ABSTRACT OF THE DISCLOSURE

The invention provides a color processing method that is capable of improving the color reproduction accuracy by calculating an adequate amount of black component (referred to as K) with consideration of the coverage restriction when a four-color signal including the black component is generated from a color signal of a input color space.　By a YMCK modeling unit, adjustment K calculation unit, restriction K calculation unit and optimal K modeling unit, modeling is performed between the representative color signal and the corresponding optimal K by use of plural color signals that belong to the partial color space, namely the color gamut that is reproducible with three colors and by use of plural color signals that belong to the area on the curved plane that is reproducible with four colors including the black component as the representative color signal.　An optimal K determining unit predicts an optimal K corresponding to the input color signal in the input color space based on the model.　Furthermore, a YMCK color signal calculation unit predicts three colors except the black component from the input color signal and the predicted optimal K.　As described hereinabove, a four-color signal including K is generated.

49